

REMARKS

The examiner has again set forth an obviousness-type double patent rejection of the claims over copending commonly assigned application Serial Nos. 10/779,420 and 10/779,505. The examiner urges that the scope of the claims overlap, and that use or omission of auxiliary components conventional used in art render the claims obvious over on another. Applicants disagree.

The claims of the subject application are directed adhesive compositions containing a radial block copolymer (PS-PI)_nX, and in amounts of less than about 15 wt %.

The claims of application Serial No. 10/779,420 are directed to adhesive compositions containing a radial block copolymer (PS-PI-PB)_nX in amounts of less than about 15 wt %.

The claims of application Serial No. 10/779,505 are directed to adhesive compositions containing a radial block copolymer (PS-PI-PB)_nX in amounts from about 15 wt % to about 35 wt %.

In determining whether a nonstatutory basis exists for a double patenting rejection, the first question to be asked is – does any claim in the application define an invention that is merely an obvious variation of an invention claimed in the patent? If the answer, as here, is no, then an obviousness double patent rejection is not appropriate. Applicants submit that the claims of the subject application are not obvious variations of the invention claimed in application Serial Nos. 10/779,420 and 10/779,505 and that the obviousness type double patenting rejection is improper. Withdrawal is requested.

Claims 1-4 and 6-16 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Komatsuzaki et al. (U.S. 6,534,593) or Vaughan et al. (U.S. 6,531,544) or Kueppers (U.S. 5,939,483). It is the examiner's position that each of these patents would provide one of

ordinary skill in the art clear direction to formulate adhesive compositions within the scope of the claims. The examiner urges that each of the claimed ingredients is shown and suggested to be used in combination in the claimed amounts. Applicants disagree.

Komatsuzaki et al. disclose block copolymer compositions used as a pressure sensitive ingredient in pressure sensitive adhesives. As described in col. 3, lines 39-43, the styrene content is in the range of 5 to 24% by weight, more preferably 10-18 % by weight, and more preferable 11 to 14 % by weight. As described in the paragraph bridging cols. 3 and 4, see, in particular, col. 4, lines 3-5, unduly high levels of styrene will result in loss of tack. From the information set forth in col. 11, lines 7-11, it can be seen that the percent of SIS used in the formulation of Komatsuzaki et al. is from 16.7 to 90.9 %. The pressure sensitive hot melt adhesive of Komatsuzaki et al. is used for the production of various pressure sensitive adhesive tapes, labels, deducting rollers and the like.

The adhesive claimed by applicants does not require pressure sensitive properties. Applicants claimed adhesive comprises a $(PS-PI)_nX$ radial block copolymer which is present in the adhesive in amounts of less than about 15 wt %. The radial block copolymer required for use in the practice of applicants' invention has a styrene content of from about 25 wt % to about 50 wt %. Such a high level of styrene will lead to a high modulus which is not useful in pressure sensitive adhesives. There is no disclosure or suggestion in the Komatsuzaki et al. patent that would motivate the skilled artisan modify the formulation Komatsuzaki et al. for use in the manufacture of disposable absorbent articles, let alone disposable elastic articles, which require high creep resistance. The pressure sensitive adhesives of Komatsuzaki et al. would not be useful as an elastic attachment adhesive in non woven applications.

Applicants submit that the claimed subject matter is not obvious over Komatsuzaki et

al. Withdrawal is requested.

Vaughan et al. disclose hot melt adhesives that can be used in the manufacture of disposable absorbent articles and which is in contact with an oil-based skin care ingredient. I.e., the adhesive is used to bond substrates that contain or are coated with oil-based ingredients. The adhesives of Vaughan et al. is described as containing 15 to 45 wt % of a block copolymer, 50 to 80 wt % of a tackifier and 0 to 10 wt % of a plasticizer. The block copolymer is preferably used in amounts greater than about 20 wt %, has a styrene content of less than 30 wt %, more preferably less than 20, even more preferably less than 15 wt % (col. 4, lines 8-10) and contains a diblock content of at least about 20 wt %, more preferably at least about 30 wt % (col. 2, line 22, and col. 4 lines 13-16). The higher diblock percentage in the block copolymer is more preferable than the lower di-block, which is apposite of applicants' invention. Again, applicants claimed adhesive comprises a (PS-PI)_nX radial block copolymer which is present in the adhesive in amounts of less than about 15 wt %. The radial block copolymer required for use in the practice of applicants' invention has a styrene content of from about 25 wt % to about 50 wt %. Moreover, in contrast to applicants' invention, which requires at least 10 wt % or plasticizer, the adhesive of Vaughan et al. contains no more than 10 wt %, and may be formulated without its use. Reference is made to Example 2, which lacks oil, and to Comparative example A, which contains 15 wt % oil and exhibits poor performance.

Applicants submit that the claimed subject matter is not obvious over Vaughan et al. Withdrawal is requested.

Kueppers describes an adhesive used in packaging applications. The viscosity of the Kueppers adhesive, typically less than about 1500 cps at about 150°C, would not be useful as an


elastic attachment adhesive and would not render obvious the subject matter claimed by applicants. See Table 1 (col. 10) of Kueppers, in which the adhesive examples are reported to have viscosities ranging from 1100 to 1470 cPs and 150°C. In contrast, applicants' formulation set forth in Table 1 (page 13 of applicants' specification) shows a viscosity at 300°F (150°C). The examiner has not pointed to any disclosure that would motivate the skilled artisan to make the adhesive claimed by applicants.

The claimed invention is not obvious over Kueppers. Withdrawal of this rejection is requested.

The examiner urges that the term "about" as used in the claimed invention imparts flexible in the amount claimed. Applicants agree that the term "about" as used in the claimed invention imparts some flexible in the amount claimed. Nevertheless none of the cited Komatsuzaki, Vaughan or Kueppers patents fairly teach adhesives comprising a (PS-PI)_nX radial block copolymer which is present in the adhesive in amounts of less than about 15 wt % and which has a styrene content of from about 25 wt % to about 50 wt %. With reference to the examiner comments regarding the viscosity limitation, the adhesive must be suitable for use as an elastic attachment adhesive.

Early and favorable action is requested.

Respectfully submitted,



Cynthia L. Foulke
Reg. No. 32,364

National Starch and Chemical Company
P. O. Box 6500
Bridgewater, New Jersey 08807-0500
Telephone No.: 908-685-7483

May 14, 2007